REMARKS

Attached hereto are marked up copies of the original specification, abstract and the amended claims. Pursuant to the requirements of 87 CFR Section 1.125 (C) the substitute specification paragraphs are numbered.

In the above referenced Office Action the Examiner objected to the disclosure for a number of reasons and the substitute specification herein makes the corrections required by the Examiner.

Claims 1-24 stand rejected under 35 U.S.C. 112 also for a number of reasons set forth by the Examiner at pages 2, 3 and 4. Applicant believes that the amended claims now clarify and correct all of the issues raised by the Examiner. It is noted that claim 25 is an omnibus claim and therefore it is cancelled. Claims 1 and 2 have been combined and claim 2 cancelled.

Applicant now considers that the claims comply with 35 U.S.C. 112 and reconsideration and withdrawal of this rejection is requested.

The Examiner also rejected the claims under 35 U.S.C. 102 in view of the Cook patent. Reconsideration and withdrawal of that rejection is requested for the following reasons:

An objection has been raised of lack of novelty in view of US 3,448,331 (Cook). The Examiner notes, in particular, that the pi mode and pi-1 mode would inherently propagate in a coaxial waveguide mode and a cylindrical waveguide mode respectively. This is not correct. The inventors appreciated that when a coaxial line is appropriately connected and lies along the axis of the anode, the pi mode resonance couples to the normal TEM coaxial mode but not the

coaxial TE11 mode, while the pi-1 mode couples to the coaxial waveguide TE11 mode but not the normal TEM coaxial mode. By arranging means for reducing transmission of energy along the coaxial line in the cylindrical TE11 mode, the pi-1 mode is attenuated. This has the advantage of both extracting unwanted modes from the magnetron and also attenuating them in transmission.

In contrast, the output arrangement of Cook is to have a coaxial line coupled to an anode to one side of the magnetron, not arranged to receive energy in an axial direction parallel to the longitudinal axis. As a result, the coupling of the modes is not as described above. Moreover, the teaching of Cook is specifically to use the pi-1 mode, rather than the pi mode, as explained at column 3, lines 34-39, thereby teaching away from the present invention.

Applicants now consider this case to be in condition for Allowance and an early notice is requested.

Respectfully submitted,

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